

# MARK DALE

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## Objective

To learn, implement and support application development using the latest information management technologies as they provide competitive advantages in the marketplace.

## Recently Added Education/Skills

### Certified Training (UCF Coding Boot Camp (10/06/2021 – 03/30/2022))

- JavaScript
- HTML
- CSS
- jQuery
- Bootstrap
- Node.js
- MySQL
- MongoDB
- Express.js
- React.js

See the Boot Camp training portfolio at <https://msdale.github.io/portfolio-msdale/>

## Skills Summary (From 1999 - 2021)

- **Cloud technologies (2017 - 2021):** client side development using Spark, Kafka, HDFS, and Hive...User exposure to Terraform provisioning, Anisble scripting, and AWS using Glue, S3, and Batch.
- **Programming languages:**
  - (2017 – 2021) Python, Scala
  - (2014 – 2021) Java
  - (1999 – 2012) C/C++.
- **Frameworks and APIs:**
  - (2017 – 2021) Spark (kafka streaming)
  - (2014 – 2017) Spring Boot
  - (2007 – 2012) gSOAP, GNOME XSLT C
- **Scripting languages:**
  - (2017 – 2021) Python

- (1999 – 2017) Perl, Shell scripting (bash, korn, and Z with a little awk and sed as well).
- **Configuration formats:**
  - (2021) YAML
  - (2014 – 2021) JSON
  - (2005 – 2012) XML
- **Editing:**
  - (1999 – 2021) VI, VIM GVIM (and VIM-based plugins in IDEs).
- **Operating systems:**
  - (1999 – 2021) Mac/Unix/Linux and Windows.
- **IDEs:**
  - (2021 – 2022) VSCode (IDE for recent Full-Stack Training)
  - (2012 – 2021) Eclipse, IntelliJ
- **Build tools:**
  - (2012 – 2020) maven and gradle
  - (1999 – 2012) make and gmake.
- **Version control tools:**
  - (2015 – 2022) Git
  - (2007 – 2014) Clearcase (IBM)
  - (2003 – 2006) CM\_Synergy
  - (1999 – 2002) RCS
- **RDBMS/SQL:**
  - (1999 – 2022) Snowflake/SnowSQL, Hive, SQL\_Server, MySQL, MariaDB, Teradata, Oracle and Informix
  - (2012 – 2014) Teradata utilities: Bteq, FastLoad, FastExport and Data Mover
  - (2001 – 2012) Oracle utilities: PL/Sql, sqlplus, sqlldr, Pro\*C and OCCI compilers.
  - (1999 – 2001) Informix utilities: ESQL/C compiler.

## Experience

### ***Walt Disney Parks & Resorts (12/1998 to 09/2021)***

#### ***Lead Information Management Engineer (06/2015 to 09/2021)***

- **Enhanced and debugged a Python3 application/framework (08/2021).**
- **Built and used scripting tool using Python3** to automate moving “on-prem” Oracle sources to AWS/S3 extract files using git-based CICD, AWS console for monitoring Glue jobs, Batch jobs, and S3 object creation **(02/2021-07/2022).**

- **Built and used data equality tester tool using Python3** for comparing data values between source (Teradata/on-prem) and target (Snowflake/cloud) **(05/2020-01/2021)**.
- **Self trained in Ansible** **(04/2020)**.
- **Built, enhanced and maintained a real-time data ingestion pipeline** moving JSON message data Kafka, to HDFS using Scala, Spark, with the Kafka streaming API. Also developed a high performance Java command-line app for consolidating small files created by the Spark streaming micro-batches **(02/2017-12/2019)**.
- **Supported a vendor-based hierarchical database system** adding my own REST service component (Java/Spring boot) to feed daily batch ETL workflows **(09/2017-02/2020)**.
- **Provided application development and support** for two internally developed ETL frameworks (one Java and one Python2) **(01/2015-02/2020)**. Some notable accomplishments:
  - ✓ Stabilized Java ETL framework and reduced framework related production incidents from 60+ to 0 average incidents per week **(01-02/2015)**.
  - ✓ Developed a REST service (Java) application for launching jobs on demand, and refactored 2 non-functioning REST client applications for retrieving JSON data and converting to XML files suitable for feeding a legacy batch file ETL process.

#### **Pertinent skills utilized ...**

**Programming:** Scala, Spark framework, Kafka/Spark streaming library-API, Java, HDFS java client, Teradata Java client, Java Spring Boot Framework, ksh, bash, perl, python.

**IDE:** Eclipse (SpringToolSuite and SCALA IDE), IntelliJ.

**DB Tools:** Teradata bteq, Teradata Studio Express.

**Build technology:** gradle, maven.

**Version control:** git.

#### **Information Architect (06/2014 to 06/2015)**

**Researched solutions and provided direction for a large-scale IT project to better personalize the guest experience** from online shopping to reservation booking to hotel registration to theme park experiences. Primary responsibilities included maintaining communications between disparate development groups for large scale project technical design and implementation.

#### **Senior DBA (06/2012 to 06/2014)**

**Served on a team of 4 DBAs to maintain a Teradata data-warehouse ecosystem.** Passed the 1<sup>st</sup> level Teradata 12 Professional Certification Exam.

Some specific responsibilities included:

- **DDL execution.**
- **Managing user roles and access.**

- **Admin process automation**

- ✓ Teradata Data Mover job automation using XSLT and shell scripting.
- ✓ Automated the process for rolling the date partitioned data window for date partitioned tables.

**Pertinent skills utilized...**

**Programming and automation:** Teradata, ksh, Perl, SQL, xsltproc.

**DB Tools:** Teradata bteq, FastLoad, FastExport, Data Mover, Teradata Studio Express, Teradata SQL Assistant.

**Senior Application Developer (05/2007 to 06/2012)**

**Served as lead developer on the GOMaster project (a tier 1 OLTP application *still in production...as of 04/2022*).** Designed and implemented a linearly scalable application infrastructure for operational (real-time) guest data integration and guest recognition. This system integrated batch and real-time data feeds using parallel-processing, message queuing and web services. Primary responsibilities included:

- **Overall design of the system and its components, including:**
  - ✓ An input interface that accommodated both batch file processing, Web Service (SOAP) messaging, and Enterprise Application message queues (IBM MQ Series).
  - ✓ A rules engine for data transformations.
  - ✓ A rules engine for executing CRUD logic.
  - ✓ A framework to simplify and standardize application components for logging, IPC device interactions (Posix queues), and application properties ingestion.
  - ✓ A C/C++ based architecture with gSOAP Web Service code generation tool (open-source) to eliminate the need for IBM Websphere licensing (major cost savings), as well as significantly reducing the resource footprint.
- **Coded the following:**
  - ✓ A Transformation rules engine.
  - ✓ A CRUD rules engine.
  - ✓ The primary data integration application (using both rules engines).
  - ✓ Collaborated with a team member to contain the primary integration app with a homespun framework for interacting with the IBM MQ Series platform and IBM Websphere SOAP Services..
- **Aided in setting up server architecture and software installations** for supporting IBM MQ Series, Oracle client, Posix queues, gSOAP and other supporting shared libraries.
- **Designed and coded the project build automation** using gmake.
- **Designed, documented and automated a deployment system** for new releases.
- **Integrated company standard version control tools** (CM\_Synergy initially, and later Clearcase, then GitHub).
- **Authored a REPL shell for testing and implementing transformation rule configurations.**
- **Full time on-call support for hyper care**, and thereafter on a rotating basis.
- **Provided maintenance and on-call support** for 5 years.

**Pertinent Skills utilized...**

**Programming:** C/C++, ksh, Perl, SQL, PL/SQL.

**APIs:** Oracle Pro\*C, Oracle OCCI, PostalSoft/FirstLogic, IBM MQ Series, gSOAP, gNome XSLT C, Apache Xerces.

**DB Tools:** sqlplus, sqllldr, SqlDeveloper.

**Build technology:** Unix make, Linux gmake.

**Version control:** CM\_Synergy initially, later on Clearcase.

### **Senior Application Developer (01/2001 to 05/2007)**

**Served as lead developer creating an Operational Data Store (ODS) for guest data** (the precursor/foundational project leading to the GOMaster project, documented previously). Designed and implemented a Mastered guest data application for real-time guest recognition. Primary responsibilities included:

- **Overall system design:**
  - ✓ A Transformation rules engine.
  - ✓ CRUD implemented in Oracle stored procedures.
  - ✓ A functional C library for IPC device interactions (semaphores and pipes), logging, DB transactions, application properties ingestion, and a data exchange interface using Enterprise queuing system (IBM MQ Series).
- **Designed, documented and automated a deployment system** for new releases.
- **Integrated company standard version control tools.**
- **Provided maintenance and on-call support** for 6 years.

**NOTE: the ODS project became Tier 1 in 2005 becoming the system of record for guest recognition data.**

### **Pertinent Skills utilized...**

**Programming:** C, ksh, Perl, SQL, PL/SQL.

**APIs:** Oracle Pro\*C, PostalSoft, IBM MQ Series.

**DB tools:** sqlplus, sqllldr, sqldeveloper.

**Build technology:** Unix make.

**Version control:** CM\_Synergy.

### **Senior Application Developer (12/1998 to 12/2000)**

Served as lead developer on the MDB (Marketing Database) project (this was the precursor to the ODS project documented above; that is the ODS project sourced much of its initial data from the MDB). Took over full technical support for the project (previously supported by technical contracting firm; Epsilon, out of Boston). Primary responsibilities included:

- **Weekend on-call.**
- **Bug fixes and coding enhancements.**
- **Some notable accomplishments:**
  - ✓ Refactored guest matching process, reducing guest duplication from 1000+ per week to less than 1 per week.

- ✓ Refactored batch process for integrating and mastering guest data, correcting numerous “house-holding” errors and increasing the marketable guest instances by over 300k.
- ✓ Designed a process for matching and merging individual guest data as a transaction in sub-second time against a database of 80 million guests, paving the way to get approved funding for the ODS project (documented previous to this).

**Pertinent Skills utilized...**

**Programming:** C, ksh, Perl, SQL.

**APIs:** Informix ESQL/C and PostalSoft.

**Build technology:** Unix make.

**Version control:** RCS.

## **Education**

### ***BS Forestry/University of Massachusetts (Amherst)***

Graduated 05/1981

GPA 3.81

Transcripts available on request

### ***Hudson Valley Community College (Troy, NY)***

Attended part-time 06/1984 to 12/1985

Calculus 1 & 2 (Both Grade: A)

Physics 1 & 2 (Both Grade: A)

Transcripts available on request